

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: PACE MICRO TECHNOLOGY PLC )  
Application No.: 09/943,520 )  
Filing Date: 08/30/01 )  
Title: TELEVISION PROGRAM SELECTION )  
MEANS )  
Art Unit: UNKNOWN )



TRANSMITTAL OF PRIORITY DOCUMENT

Director for Patents and Trademarks  
Washington, D.C. 20231

Dear Sir:

Enclosed herewith is a certified copy of British Patent Application No. 0021548.3  
for which the above-identified patent application claims priority from.

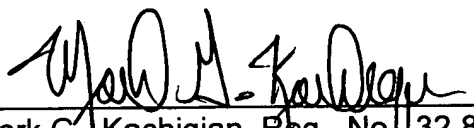
If, for any reason, this priority document is not acceptable, please inform the  
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Respectfully Submitted

HEAD, JOHNSON & KACHIGIAN

Date: 10/17/01

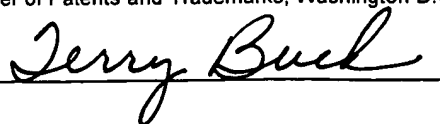
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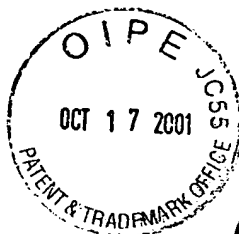
  
Mark G. Kachigian, Reg. No. 32,840  
228 West 17th Place  
Tulsa, Oklahoma 74119  
(918) 584-4187  
Attorney for Applicant

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#14

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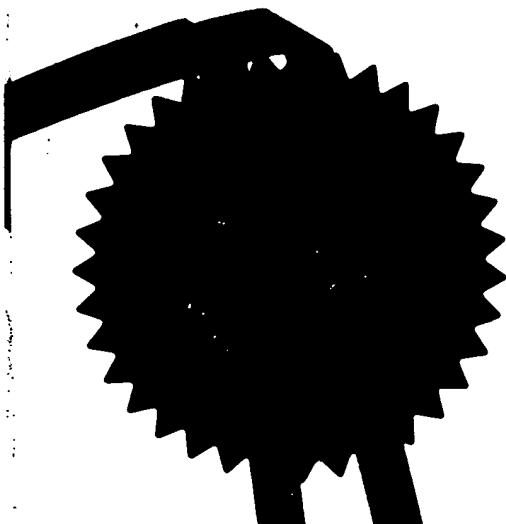
The Patent Office  
Concept House  
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I, the undersigned, being an officer duly authorised in accordance with Section 74(1) and (4) of the Deregulation & Contracting Out Act 1994, to sign and issue certificates on behalf of the Comptroller-General, hereby certify that annexed hereto is a true copy of the documents as originally filed in connection with the patent application identified therein.

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Signed

Dated

4 SEP 2001

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(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

THE PATENT OFFICE
-2 SEP 2000
NEWPORT

The Patent Office  
Cardiff Road  
Newport  
Gwent NP9 1RH

1. Your reference	AT-G30356	2 SEP 2000
2. Patent application number (The Patent Office will fill in this part)	0486700 8365304-9 D00346 P01/77100.0.00-0021548.3	

3. Full name, address and postcode of the or of each applicant (underline all surnames)

0021548.3

Pace Micro Technology Plc

Victoria Road  
Saltair  
Shipleigh  
BD18 3LF

Patents ADP number (if you know it)

If the applicant is a corporate body, give the country/state of its incorporation

7588569501  
U.K.

4. Title of the invention **Television Programme Selection Means**

5. Name of your agent (if you have one)

Bailey Walsh & Co.

"Address for service" in the United Kingdom to which all correspondence should be sent (including the postcode)

5, York Place  
Leeds  
LS1 2SD

Patents ADP number (if you know it)

224001 ✓

6. If you are declaring priority from one or more earlier patent applications, give the and the date of filing of the or of each of these earlier applications and (if you know it) the or each application number	Country	Priority application number (if you know it)	Date of filing (day / month / years)

7. If this application is divided or otherwise derived from an earlier UK application, the earlier application	Number of earlier application	Date of filing (day / month / years)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? (Answer "Yes" if:

Yes

- a) any applicant named in part 3 is not an inventor, or
  - b) there is an inventor who is not named as an applicant, or
  - c) any named applicant is a corporate body
- See note (d)

Enter the number of sheets for any of the following items you are filing with this form.  
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Continuation sheets of this form

Description

6

Claim(s)

Abstract

Drawing(s)

14

10. If you are also filing any of the following, state how many of each item.

**Priority Documents**

Translations of priority documents

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

Request for substantive examination (Patents Form 10/77)

Any other documents (Please specify)

11. I/We request the grant of a patent on the basis of this application

Signature

Date

*B. M. T. G.*

01.09.00

12. Name and daytime telephone number of person to contact in the United Kingdom

A Tomkinson  
0113 2433824

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- Write your answers in capital letters using black ink or you may type them.
- If there is not enough space for all the relevant details on any part of this form, please continue on a separate sheet of paper and write "see continuation sheet" in the relevant part(s). Any continuation sheet should be attached to this form.
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## Television Programme Selection Means

This invention relates to a programme selection means for a television system.

It is often the case that a television viewer will have only a limited period of time in which to watch the television before they have to go out or they have to do something else. The viewer may waste this limited period of television viewing by channel hopping to find a particular programme of interest which will fill the time available. There are now increasing numbers of television channels available on television systems and so switching from channel to channel to find a suitable programme can typically take a long period of time. As such, the viewer may end up not watching anything of interest in the time period available which can be frustrating for the viewer and therefore undesirable.

Furthermore a viewer may select a programme to watch and not realise that the programme is longer than the limited time period that is available for them to watch it in. This can be annoying for the viewer, particularly if the programme is a film in which viewers generally like to see the beginning and the end thereof.

It is therefore an aim of the present invention to provide a viewer with a means for rapidly selecting a television programme of interest suitable for watching in a limited time period.

According to a first aspect of the present invention there is provided programme selection means for a television system, said television system including a display screen and a broadcast data receiver for the generation of audio, visual and auxiliary data from digital data received from a broadcaster, and wherein said television system is provided with means to select one or

more programmes from said received broadcast data which are indicated to the user as being suitable for being viewed in a pre-selected time period.

Preferably the time period which the television system identifies suitable programmes therefor is selected by the viewer.

In one embodiment the viewer can type into the television system the time period which their viewing time is to be limited to. In an alternative embodiment a number of time period options are displayed on the display screen for selection by the viewer.

Preferably once the viewer has selected an appropriate time period, the viewer is then able to select a programme suggestion button and/or similar which activates the television system to search for a programme in the data received from the broadcaster, which is suitable for viewing in the selected time period.

Preferably the television system can search for programmes which are stored in memory means in the television system, programmes which are received in real time from the broadcaster and/or the like.

Preferably the memory means is in or connected to the broadcast data receiver.

Preferably means are provided to allow a viewer to input into the television system the types of programmes they would like to watch during the selected time period.

In one embodiment an electronic programme guide (EPG) maintains a database of the types of programmes the viewer

likes to watch. This list of programmes can be pre-selected by the viewer or based on the type of programme frequently watched by the viewer, public ratings of the programme, the actors in the programmes, a particular football team the programme relates to and/or the like.

EPGs are provided in television systems due to the large numbers of channels and programs available. This large number of channels and programs makes conventional listing means inadequate. The EPG stores programme information in an easily accessible format, such as the subject matter of the programme, the length of the programme, the time of showing of the programme and/or the like.

Preferably the television system can search for a suitable programme to fill the time period using the EPG information.

Preferably a cancellation button is provided such that if the viewer does not wish to watch the programme suggested by the television system, the cancellation button prevents the television system from being tuned into the suggested programme, thereby allowing the viewer to look at other programme suggestions.

An advantage of the present invention is that the viewer can quickly select a television programme from a number of possible options indicated by the television system as being suitable for watching during a pre-selected time period, thereby greatly reducing the time which may be spent flicking through channels to find a suitable channel.

An embodiment of the present invention will now be described with reference to the accompanying figures wherein:

Figure 1 is an example of a display screen of the invention.

Figure 2 is a further example of the display screen of the invention.

Referring firstly to Figure 1, there is illustrated an example of a display screen 2 for a television system. The television system is provided with means for time limited programme selection according to a pre-determined time period.

A menu bar 4 can be selected to appear on display screen 2 using the remote control or similar. The menu bar 4 includes a plurality of buttons 6, each button representing a different time period, a "make recommendation" button 8 and a cancel button 10.

In use, the viewer brings up the menu bar 4 on the display screen 2 and selects a button 6 which is appropriate to the limited time period they have available to watch the television.

The viewer then presses the "make recommendation" button 8 to initiate searching of the television's database for a suitable programme which can be watched during the selected time period.

Once the television system has selected an appropriate programme from its database, the window 12 appears on display screen 2, as shown in Figure 2. The window 12 displays the selected time period 14, the title of a suggested programme 16 identified by the television system that can be watched during the selected time period, the channel on which the suggested programme is being shown on 18 and an acceptance button 20 which when selected results in the television system being tuned to the channel 18.



Cancel button 10 can be displayed on menu bar 4, to cancel the time period selected. Cancel button 22 on window 12 can be provided to cancel the suggested programme if the viewer does not approve of the programme selection made.

Once cancellation of the suggested programme has been made, a further programme suggestion can be made or alternatively the user can return to manually selecting a channel or channels.

The programme suggested by the television system is likely to run for a length of time similar to that of the selected time period. If the viewer has only a small period of time available, such as 5 or 10 minutes, the television system is unlikely to find a whole programme to fit into the selected time period. For example, films and entertainment shows typically require the viewer to watch the whole programme and so these types of programmes are likely to be unsuitable for suggestion. In this case the television can select programmes which can be watched for small periods of time without it mattering that the entire length of the programme is not watched. For example, sporting events, news features, documentaries and cartoons can be suggested by the television system which frequently only last for 5-10 minutes.

The viewer can select buttons within the menu bars and windows using the remote control, a mouse or controls on the broadcast data receiver and/or similar.

The viewer can input suggestions into the television system of the type of programmes they are interested in watching. For example, a drop down menu can be provided which displays a list of possible topics or types of television programmes for selection. A favourites menu can also be used where the viewer

has previously selected a number of programmes or channels and which are stored in the memory of the television system.

The EPG can be used to maintain a database of the types of programmes the viewer likes to watch. This can be based on programme type, ratings, a particular team, the actors involved and/or the like. The television system can then use this EPG data to suggest possible programmes to watch in the limited time period selected.

Thus the present invention provides a means of selecting television programmes for viewing in pre-selected time periods without the viewer having to waste time searching through a plurality of programmes.

Figure 1

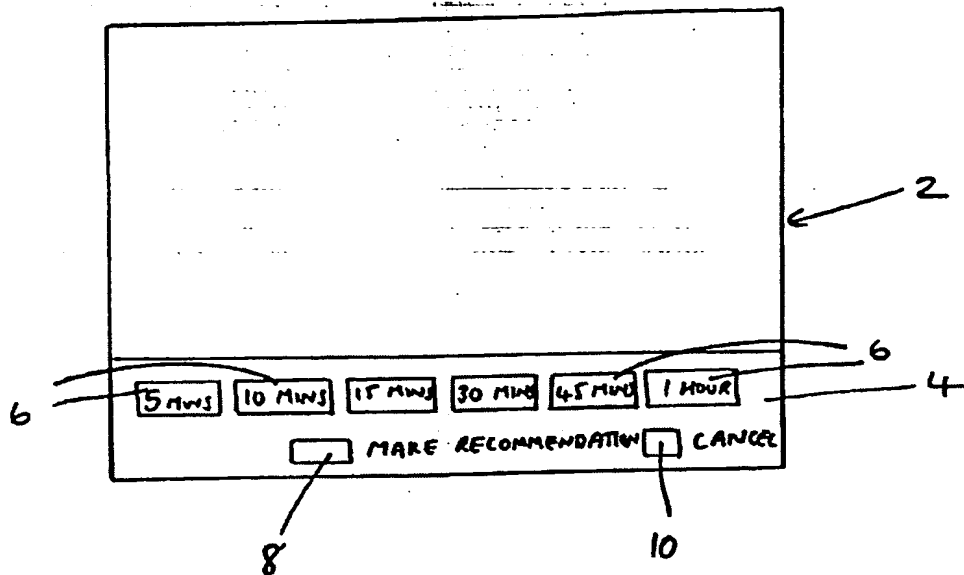


Figure 2

